REMARKS

[1] The drawing was objected to for un-labeled blocks. Corrected drawing figures are attached. No new matter is entered. Approval is requested.

[2-3] Acronyms replaced by full words in the claims and are explained in the specification by new paragraphs. For the Examiner's convenient reference, the meanings are:

        CFR - confirmation of facsimile receipt

        DCN - discontinue communication notification

        DCS - digital communication signal

        EOF - end-of-file

        EOP - end of procedure

        MCF - message confirmation function

        NSF - non-standard function

        NSS - non-standard function setting

        TCF - training check function

[4-5] Claims 1 and 5-19 were rejected under § 102 over Nicol. '367. This rejection is respectfully traversed.

The present invention is concerned with preventing disconnection due to delays when fax data is sent over the internet. The internet can have long pauses between transmissions of data packets, because the packets can be big. The instant specification notes this at page 2, lines 10-14: "due to increased amount [size] of the packet, there is a risk of ... delays."

Because of the big inter-packet intervals, disconnections can occur when faxing over the internet. The fax-sending gear does not receive any reply from the fax-receiving gear, due to the inherent delay of the internet, as mentioned above. The fax-sending gear, adjusted to the delays inherent in a telephone line rather than those inherent in the internet, thinks that no connection has been made, and it hangs up. If the fax-sending gear had more patience, the transmission could be completed. But a very long delay is not appropriate for telephone use.

If order to solve this problem, the Applicant sends data from the receiving gateway device (221 in Fig. 3) to the fax machine (121 in Fig. 3), and "regardless of whether the accumulation of

required amounts of data in the memory is completed or not, transfers the data stored in the memory .... to the facsimile" (page 4, lines 25-27).

The Applicant explains at page 19, line 11, that "picture data accumulating memory 24a [Fig. 5] is ... adapted to store a predetermined amount of the picture data required for sending out picture data from the gateway device .... to the facsimile device ... when a delay develops as expected, in order to prevent a breakdown of communications" (page 19, lines 11-16). There is also a data amount monitoring circuit 32 (Fig. 5) that monitors "the stored amount of the picture data accumulated in the picture data accumulating memory 24a" (page 19, lines 23-25) and a calculating circuit 33 (also in Fig. 5) that "calculated the necessary amount of the picture data described above" (page 19, line 26). The Applicant states (page 21, line 5), "the picture data ˙ accumulating memory 24a, accumulated data amount monitoring circuit 32 and accumulated data amount calculating circuit 33, which are all specific to the present invention, operate to avoid communication failures when delays in communications develop."

These features exemplify the recitation in new claims 23-24:

[23] ... *a picture data accumulating memory comprised in the second gateway device; and*

circuitry sending picture data from the picture data accumulating memory to the second

facsimile device only after a preset interval of time, the preset interval of time being less than a

communication failure time interval at which communication among the gateway devices and the

facsimile devices is interrupted by at least one of those devices, due to a communication delay in

the communication line.

[24] ... *wherein the circuitry sending picture data comprises*

an accumulated data amount monitoring circuit;

an accumulated data amount calculating circuit; and

a timer.

Step S19 (page 24, line 26) explains that the receiving gear always acknowledges data receipt to the sending gear, which prevents communication cutoff.

The language added to amended claim 1 is supported at page 25, line 9: "even if the accumulated amount of the picture data does not reach the required amount of data, the second gateway device 221 starts transferring the picture data to the second facsimile device 121. That is, the second gateway device 221 allows the necessary amount of the picture data to be accumulated unless the elapsed time exceeds the set time T_1 and if the elapsed time is likely to exceed the set time T_1, even if the picture data amount is less than the necessary amounts of the data, the picture data is sent to avoid the breakdown of communications."

For example, the gateway device might send only a portion of a print line.

Nicol does not disclose the claimed features. With respect, the jitter buffer pointed out by the Examiner does not hold data only for a preset time, but instead is filled up prior to downloading its data, regardless of how long it take to fill up. Nicol writes (col 28, line 32), "When the spoofing logic receives a low buffer indication ... it inserts spoofed data .... Spoofing continues until the jitter buffer 208 is above a predetermined threshold level, at which time data signals are again transferred from the jitter buffer 206."

Thus, Nicol actually teaches against the Applicant's claims, by waiting until there is a predetermined amount of data; for example, the spoofing logic might wait for the jitter buffer to contain one complete print line, and then send that one print line out.

[6] The Examiner stated that claims 20-22 include allowable subject matter; these claims are amended to be allowable. The Examiner did not state that claims 2-4 include allowable subject matter, but these claims are not rejected and therefore the Applicant understands that claims 2-4 also include allowable subject matter. Claims 2-4 are amended to be allowable.

Respectfully submitted,

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